



State of Utah

Department of Natural Resources

MICHAEL R. STYLER
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Division of Oil, Gas & Mining

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Division Director

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Governor

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Lieutenant Governor

August 24, 2005

CERTIFIED RETURN RECEIPT
7002 0510 0003 8603 4278

Dave Taylor, President
Miracle Rock Mining & Research
400 South 200 East
P.O. Box 76
Emery, Utah 84522

Subject: Second Review of Notice of Intention to Commence Large Mining Operations,
Miracle Rock Mining & Research, Rockland Mine, M/015/040, Emery
County, Utah

Dear Mr. Taylor:

The Division has completed our review of your draft Notice of Intention to Commence Large Mining Operations for the Rockland Mine, located in Emery County, Utah, which was received June 15, 2005. The attached comments will need to be addressed before tentative approval may be granted.

The comments are listed under the applicable Minerals Rule heading; please format your response in a similar fashion. **Please address only those items requested in the attached technical review** by sending replacement pages of the original mining notice using redline and strikeout text, so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records. Please provide a response to this review by October 14, 2005.

If you have any questions in this regard please contact me or Paul Baker of the Minerals Staff. If you wish to arrange a meeting to sit down and discuss this review, please contact us at your earliest convenience. Thank you for your cooperation in completing this permitting action.

Sincerely,

Susan M. White
Minerals Regulatory Program
Mining Program Coordinator

SMW:PBB:jb
Attachment: Review
cc: John Blake, SITLA

Mr. David Taylor
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REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

**Miracle Rock Mining & Research
Rockland Mine
M/015/040
August 24, 2005**

R647-4-105 - Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

Map 105.1 does not show the following items which are required in the application:

- A. Property boundaries of surface ownership
- B. Perennial, intermittent, or ephemeral streams (DJ)

The application states known areas previously impacted by mining are shown on map 105D.

No previously impacted areas are shown on map 105D (DJ)

Map 105E is purported to show areas to be disturbed over the life of the mine. In a visit to the site in 2002, the mine was expanding to an area to the northwest. Is this additional area shown on the maps enclosed with the application? (DJ)

None of the enclosed maps show the area which will be impacted by future mine expansion.

Please show these areas of expansion on a map of sufficient scale (1"=200') to allow for the documenting of the information. (DJ)

105.2 Surface facilities map

Map 105.2 indicates that there are no overburden/waste piles at the site. Under heading 106.3 of the application an area of 0.5 acres is shown as overburden/waste dumps.

The Division has observed that overburden/waste has been pushed over areas on the northeast and northwest edges to form the working platforms at the site. Do these areas still exist at the site? If these areas exist please show the outlines on the map. (DJ)

105.3 Drawings or Cross Sections (slopes, roads, pads, etc.)

Map 105.2 does not show reclamation treatments that will be applied at the site. Please furnish a reclamation treatments map with details highlighted as described in this portion of the application. (DJ)

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On map 105.2, please outline the extent of the areas to be reclaimed after mining.
(DJ)

Map 105.2 only shows highwalls in the southeast portion of the site.
Is this the only area within the site which contains highwalls? (DJ)

R647-4-106 - Operation Plan

106.2 Type of operations conducted, mining method, processing etc.

This area of the application indicates the highwall area of the mine will continue to be developed at an estimated rate of $\frac{1}{4}$ acre/year.

Maps included in the plan do not show any areas of expansion for the mine in the future. Please show any areas of expansion for the mine on the surface facilities map.
(DJ)

106.3 Estimated acreages disturbed, reclaimed, annually.

The application indicates that the site will have 2.5 acres of access/haul roads.

The map included only shows access road which has a GPS-measured disturbance of 0.73 acres. Where is the additional 1.77 acres of roads located? (DJ)

A map should be included showing where on the site the Estimated Acreages are located. It is difficult to understand the area designations without having a map to identify these areas. (DJ)

The estimated acreage shows a 2-acre tailings area. What portion of the material produced at the site is considered tailings. (DJ)

106.5 Existing soil types, location, amount

The plan indicates that there is 403 cubic yards of soil available for use during the reclamation of the site. Is this amount of soil in addition to soils presently stockpiled at the site? If so what is the total amount of soils that will be available to reclaim the site? (DJ)

106.6 Plan for protecting & redepositing soils

The thickness of soils in this portion of the plan is noted as being a depth of 0.4 inches.

Is this a misprint or is there virtually no soil to be harvested in the areas of future mine expansion? (DJ)

Assuming 403 cubic yards of soil is currently stored at the site and 53.7 cubic yards will be salvaged in the future, there is an average of one-half inch of soil to be spread over the site in reclamation. This is not enough to make much difference in revegetation. *There needs to be a plan for reclamation that shows what growth media will be used to establish vegetation.* Could the sidecast materials, overburden, or waste be used as substitute soils? What is the chemical and physical nature of these materials? (PBB)

If the materials in the pad outslope are to be used as a growth medium, they need to be tested for pH, electrical conductivity, texture, sodium adsorption ratio, and major nutrients. These same tests would be done on any other materials that would be used as substitute soil. Depending on the results of these tests, soil amendments might be needed. (PBB)

Please describe how the refuse material will be reclaimed. How much soil can be used to cover it? Please also include information about the nature of material in the refuse pile. Is this material acid-forming? If this material is not suitable as a subsoil, it may be necessary to cover it with a few feet of plant growth medium. (PBB)

106.7 Existing vegetation - species and amount

The summary vegetation cover figures indicate there is only 3 percent vegetation cover and that the revegetation success standard would be 1.94 percent. This is based on understory cover and excludes overstory cover which averages 18 percent. (PBB)

According to the raw data, the average vegetation cover in the 20 transects sampled was 20.78 percent. The revegetation success standard is 70 percent of this value or 14.55 percent. Please include these values in the plan. (PBB)

106.9 Location & size of ore, waste, tailings, ponds

Sediment from the small sediment pond should be placed in the soil stockpile area for use in reclaiming the site, not in the refuse pile. (DJ)

The plan says, "All drainage above the mining area is diverted to the material drainage onto the mining area."

Please show this material drainage on the surface facilities map. (DJ)

R647-4-107 - Operation Practices

107.4 Deleterious material safely stored or removed

The plan does not state whether there is fuel storage at the site. Please note if fuel or other lubricants are being stored at the site. (DJ)

107.5 Suitable soils removed & stored

The plan does not state the measures taken to salvage soil or how this soil will be protected from erosion or other impacts.

Please indicate in the plan how these items will be completed. (DJ)

R647-4-110 - Reclamation Plan

110.2 Roads, highwalls, slopes, drainages, pits, etc., reclaimed

Please describe how the portals at the site will be sealed. Also state the depth of the soil to be placed during reclamation. All highwalls at the site should be reclaimed at closure. (DJ)

110.5 Revegetation planting program

Please include surface preparation techniques as part of the revegetation plan. Also please show how and when seed will be planted. The surface needs to be left extremely rough, and seed should be planted as soon after surface preparation as possible, preferably immediately after gouging with a trackhoe or ripping on the contour. Seeding needs to be done in the fall, about October or November, with no seeding done later in the season than the middle of December. (PBB)

R647-4-111 - Reclamation Practices

111.6 All slopes regraded to stable configuration

Please state in the plan the final planned slope configuration of the fill areas of the mine. (DJ)

111.8 All roads & pads reclaimed

Please state in the plan how roads at the site will be reclaimed. (DJ)